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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,400	03/07/2001	Harald Bock	112740-191	4054

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EXAMINER	
SEDIGHIAN, REZA	
ART UNIT	**PAPER NUMBER**
2633	

DATE MAILED: 08/09/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/801,400	HARALD BOCK ET AL.	
	Examiner	Art Unit	
	M. R. Sedighian	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 May 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1. This communication is responsive to applicant's 5/20/04 amendments in the application of Bock Haraled filed 3/7/01. The amendments have been entered. Claims 1-3 and 5-7 are now pending.

2. Claim 5 is objected because the reference numeral "4" in line 2, should change to --- 1---.

Claim 6 is objected because the reference numeral "4" in line 2, should change to --- 1---.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-2 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagel et al. (US Patent No: 5,481,399) in view of Chawki et al. (US Patent No: 5,576,875).

Regarding claims 1 and 5-6, Nagel teaches a system (figs. 2A, 2B) for suppressing instabilities in an optical wavelength division multiplex system (col. 2, lines 10-15, col. 4, lines 7-8), comprising: a wavelength demultiplexer filter device (24, figs. 2A, 2B) inserted in an optical fiber (col. 3, lines 44-50 and 5, fig. 1) for demultiplexing a wavelength division multiplex signal into individual optical signals (col. 4, lines 9-12), wherein the filter device has a low stop-band attenuation only for individual optical signals which are in transmission channels (col. 4, line 10), and further having a high stop-band attenuation outside the transmission channels for a wavelength range containing the instabilities (col. 4, line 11); and a multiplexer device (26, fig. 2A and 30, fig. 2B) for combining the individual signals into a wavelength division multiplex

signal (col. 4, lines 23-30). Nagel differs from the claimed invention in that Nagel does not disclose the device is inserted in an optical fiber of a ring network. Chawki teaches an optical add-drop filter can be placed in an optical ring network (col. 2, lines 14-17, col. 3, lines 10-15, 23-28). Therefore, it would have been obvious to an artisan at the time of invention to incorporate an optical add-drop filter such as the one of Nagel in a multiplex ring network, as it is taught by Chawki, in order to add and drop specific channels within the network and to suppress noise signals. Furthermore, it would have been obvious to a person of ordinary skill in the art to at the time of invention to incorporate an optical filter such as the one of Nagel in a ring network in order to filter or reject the noise signals that are originated from a previous node, or to reject the noise generated by optical amplifiers that can be placed along the fibers of a ring network.

Regarding claim 2, Nagel teaches the first and second filter are incorporated to a single module (col. 4, lines 4-8 and 20, fig. 2), and output of the first filter is connected to the input of the second filter (24, 30, fig. 2B).

Regarding claim 7, Nagel teaches transmission of optical signals in the range of 1.53 μm to 1.565 μm (col. 4, lines 60-64).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagel et al. (US Patent No: 5,481,399) in view of Chawki et al. (US Patent No: 5,576,875) and in further view of Strasser et al. (US Patent No: 5,850,302), or Henmi (US Patent No: 6,137,603).

Regarding claim 3, the modified optical add-drop device of Nagel and Chawki differs from the claimed invention in that Nagel and Chawki do not disclose the first filter is a Bulk

filter, or an AWG filter. Strasser teaches a Bulk filter (col. 6, lines 52-55). Henmi teaches an AWG add-drop filter (col. 1, lines 26-31). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an optical Bulk filter such as the one of Strasser, or an AWG filter, such as the one of Henmi for the optical filter in the modified optical add-drop device of Nagel and Chawki in order to provide a filter that is easily customized and that is readily adaptable to a wide range of applications and that can reduce crosstalk between adjacent channels.

6. Applicant's arguments filed 5/20/04 have been fully considered but they are not persuasive.

Remark states that Nagel does not disclose a wavelength demultiplexer filter device having a low stop-band attenuation only for individual optical signals which are in transmission channels, and further having a high stop-band attenuation outside the transmission channels for a wavelength range containing instabilities. Nagel teaches an add/drop device 20 that is comprised of a drop element such of a filter 24 and an add element such as a wave division multiplexer 30, wherein the filter 24 is an standard noise filter having the capability of passing the data signal and rejecting the noise peak (col. 4, lines 5-15). Accordingly, the filter device 24 of Nagel has a low stop-band attenuation for individual optical signals which are in transmission channels (the data signals) and having a high stop-band attenuation outside the transmission channels for a wavelength range containing instabilities (the noise signal). Remark further states Nagel does not teach the use of a demultiplexer filter devices for ring network where the filter device has different attenuations at different wavelengths in the transmission channels. Nagel clearly

discloses the filter 24 has different attenuation at different wavelength, for example Nagel discloses (col. 4, lines 9-11) filter 24 passes the data signal and rejecting the 1532 nm noise peak (or instability). Figure 2A shows filter 24 drops the signal of wavelength 1.53 (the noise or instability signal) and passes the 1.56 μm signal (the data signal). As to incorporating such filter, or such add/drop module in a ring network, Chawki is cited to show that an optical add/drop filter can be incorporated in a ring network. Although, Chawki does not specifically disclose incorporating a filter to reject noise or instability, Chawki teaches the use of a filter in a ring network to select the information (col. 3, lines 10-15). It would have been obvious to a person of ordinary skill in the art to incorporate an add/drop module such as the one of Nagel in a ring network to filter or reject the noise signals or the instabilities that are originated from a previous node, or to reject the noise signal generated by an optical amplifier, or amplifiers that are placed along the fibers of a ring network. Applicant's attention is directed that during the prosecution of a pending patent application the terms found in the claims should be given the broadest reasonable interpretation, *See in re Pearson,* 181 USPQ 641 (CCPA 1974).

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. R. Sedighian whose telephone number is (703) 308-9063. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

M. R. SEDIGHIAN
PRIMARY EXAMINER